

**GUIDELINES FOR THE
DEVELOPMENT OF
LOCAL SOLID WASTE MANAGEMENT PLANS
AND PLAN REVISIONS**



March 15, 1990

WDOE 90-11



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March 15, 1990

Dear Local Government Representatives and Other Interested Parties:

Enclosed with this letter are the recently updated solid waste planning guidelines with the new waste reduction and recycling element included. As you may know, the 1989 Legislature directed Ecology to revise our solid waste planning guidelines to provide additional assistance to local government in planning for waste reduction and recycling opportunities in their communities. We are pleased to submit these guidelines to you on schedule with the timetable set forth by the state legislature. Ecology placed a high priority on the timely development of these guidelines because of statewide commitment to waste reduction and recycling.

A fifteen member advisory committee met six times to help develop these guidelines. In addition, we solicited public comment from over 900 individuals and local governments across the state on the draft guidelines. We made many changes based on the input received. We believe that the revised guidelines outline a very reasonable approach for local plan, development and content.

These guidelines are a critical link in the legislative direction set in ESHB 1671 (Waste Not Washington Act). They are to be used by local government and local Solid Waste Advisory Committee (SWAC) members to their solid waste management plans by the dates outlined in the legislation. These dates are as follows:

July 1, 1991 for Spokane, Snohomish, King, Pierce, and Kitsap
July 1, 1992 for other counties west of the Cascades
July 1, 1994 for other counties east of the Cascades, except Spokane

Obviously, time is short for these plan revisions, especially for those counties that are to revise their plans by July 1, 1991. However, these plan revisions are essential to maximize waste reduction and recycling and to make recycling services accessible and affordable as possible to citizens in the state. We can achieve the worthwhile goals set by ESHB 1671 by planning how each jurisdiction will provide the opportunity for its Citizens to reduce and recycle their wastes. Let's work together to implement ESHB 1671 and make Washington a true "waste-not" state.

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Any questions on these guidelines may be directed to the appropriate regional office staff or the following Olympia staff: Helen Bresler (Solid and Hazardous Waste Program at (206) 438-7559) or Christine Chapman (Office of Waste Reduction, Recycling and Litter Control at (206) 459-6296). To assist local government with the plan revisions, we will be holding regional workshops on implementation of the guidelines in late June. If you are not a local SWAC/plan coordinator or SWAC member, and would like to receive notification of the workshops, please call Leighton Pratt at (206) 459-6274.

Sincerely,

Christine O. Gregoire
Director

COG:CC:dm

Enclosures

cc: Advisory Committee Members:

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*Special thanks for the input given by
the Waste Reduction and Recycling Planning Guidelines Advisory Committee
and to
Tim Schlender for the graphics*



I. INTRODUCTION

Chapter 70.95 RCW, the Solid Waste Management-Recovery and Recycling Act, regulates the handling of solid waste in Washington State. The law assigns primary responsibility for solid waste planning and management to local governments. Each county is required to prepare a comprehensive solid waste management plan. Counties may prepare individual plans, or two or more counties may prepare a joint plan. A city may prepare its own plan for integration into the county solid waste plan, may enter into an agreement with the county to do a joint city/county plan, or may authorize the county to prepare a plan for the city's solid waste management as part of the county plan. Two or more cities may prepare a plan for inclusion in the county's solid waste plan. With prior notification of its home county, a city in one county may enter into an agreement with a city in an adjoining county, or with an adjoining county, or both, to prepare a joint plan for solid waste management to become part of the comprehensive plan of both counties.

Plans must include a description of all existing solid waste handling facilities, must estimate the long-range needs for solid waste handling facilities projected twenty years into the future, and must include a program for the orderly development of solid waste handling facilities in a manner consistent with county comprehensive land use plans. Solid waste management plans must emphasize waste reduction and source separation strategies, since these local programs are essential if the state is to achieve its goal of a 50% recycling rate by 1995. The Department of Ecology reviews, and approves or disapproves the plans. Department disapproval of a plan may be appealed under the Administrative Procedures Act, Chapter 34.05 RCW.

Permits for solid waste disposal sites or facilities must conform to the local solid waste management plan. Permits are issued by the local health department, which must interpret the plan and determine whether or not a proposal is in conformance. The Department of Ecology reviews permit applications for compliance with the requirements set forth in Chapter 173-304 WAC and with other applicable statutes and regulations, as well as. for consistency with the local solid waste management plan. Ecology may appeal the issuance of a permit to the Pollution Control Hearings Board.

The Department is also required to develop a state solid waste management plan. This plan is to be developed in cooperation with local government, the Department of Community Development, and other appropriate state and regional agencies. It "shall be reviewed at two-year intervals, revised as necessary, and extended so that the plan shall look to the future for twenty years as a guide in carrying out a coordinated state solid waste management program" (WAC 173-304-011). The state solid waste plan must be consistent with these planning guidelines.

II. PURPOSE AND ORGANIZATION OF THE GUIDELINES

These guidelines are intended to assist local governments in preparing plans which comply with the requirements of Chapter 70.95 RCW and Chapter 173-304 WAC. Local governments are strongly encouraged to use them, since plans prepared in conformance with these guidelines should meet all requirements for expeditious plan approval. Jurisdictions which choose to deviate from the guidelines will have the added burden of proof of showing that their plans meet the intent and the letter of the legal requirements. These guidelines supersede the May 1986 State Solid Waste Planning Guidelines. WDOE 86-4.

Chapters I through IV provide a brief synopsis of Chapter 70.95 RCW, outline the key changes to the law which occurred in the 1989 legislative session, and define the roles and responsibilities of the groups involved in the planning process. Chapters V through VII describe the planning process and outline the items, which must be included in the plans. Chapters VIII and IX provide supplementary information-definitions and copies of pertinent statutes.



III. NEW LEGISLATION

Several important changes were made to Chapter 70.95 RCW during the 1989 legislative session. Some have the most important which pertain to local solid waste planning are:

1. Revised priorities for the collection, handling, and management of solid waste;
2. Deadlines for submittal of the waste reduction and recycling element of the local plan, deadlines for other plan revisions, and a schedule for periodic review of plans;
3. A requirement that each local government prepare a comprehensive waste reduction and recycling element as part of its solid waste management plan; and
4. A time schedule for Ecology review of local plans, which includes an appeal process if the department disapproves a plan or plan amendment;

Items 3 and 4 are discussed later in these guidelines. Items 1 and 2 are discussed below.

A. SOLID WASTE MANAGEMENT PRIORITIES

Chapter 70.95.010 RCW, as amended by the 1989 legislature, identifies the following priorities for the collection, handling, and management of solid waste. The law states that these priorities "are necessary and should be followed in descending order as applicable:

1. Waste reduction;
2. Recycling, with source separation of recyclable materials as the preferred method;
3. Energy recovery, incineration, or landfill of separated waste;
4. Energy recovery, incineration, or landfiling of mixed wastes."

B. DEADLINES FOR PLAN REVISIONS

The 1989 legislature adopted revised deadlines for the review and revision of comprehensive solid waste management plans. Chapter 70.95.110 RCW, as amended, requires cities and counties preparing solid waste management plans to submit the final draft of the waste reduction and recycling element required in RCW 70.95.090 and any revisions to other elements of their comprehensive solid waste management plans to Ecology no later than:

July 1, 1991, for the counties of Spokane, Snohomish, King, Pierce, and Kitsap and all the cities therein;

July 1, 1992, for all other counties located west of the crest of the Cascade mountains and all the cities therein; and

July 1, 1994, for the counties east of the crest of the Cascade mountains and all the cities therein, except for Spokane County.

"Thereafter, each plan shall be reviewed and revised, if necessary, at least every five years" (RCW 70.95.110).

In addition to these periodic reviews, the law requires that plans be "maintained in a current condition and reviewed and revised periodically by cities and counties as may be required by the department" (RCW 70.95.110). This gives the Department of Ecology the authority to require that a city or county review and revise its plan if the department determines that such a review and revision is necessary.

For the purposes of these guidelines, a plan revision refers to a complete review of an entire plan and the subsequent revision of that plan. A plan amendment refers to a minor change, which may not involve a review of the entire plan. All plan amendments should go through the same local review and adoption process, and through the same Department of Ecology review and approval process as plan revisions.

IV. ROLES AND RESPONSIBILITIES

A. LOCAL GOVERNMENT

Chapter 70.95 RCW assigns primary responsibility for solid waste planning and management to local government. The Minimum Functional Standards for Solid Waste Handling, Chapter 173-304 WAC, states that "the overall purpose of local comprehensive solid waste planning is to determine the nature and extent of the various solid waste categories and to establish management concepts for their handling, utilization, and disposal consistent with the priorities established in RCW 70.95.010." Local plans are to be prepared in accordance with RCW 70.95.080, 70.95.090, 70.95.100, and 70.95.110.

Additionally, RCW 70.95.165 requires those local governments designated to prepare solid waste management plans to "establish a local solid waste advisory committee to assist in the development of programs and policies concerning solid waste handling and disposal and to review and comment upon proposed rules, policies, or ordinances prior to their adoption." Members of the solid waste advisory committee are to be appointed by the local governing body. Committee membership "shall represent a balance of interests including, but not limited to citizens, public interest groups, business, the waste management industry, and local elected public officials." Local government is responsible for assisting the solid waste advisory committee as much as possible. Such assistance might include assigning staff to perform administrative support duties, providing supplies, arranging for meeting places, and publishing notice of meetings.

Local government is also responsible for ensuring that the public has a chance to participate in the decision-making process. Methods to accomplish this include:

1. Holding public hearings on the solid waste management plan and on any proposed revisions and amendments to the plan;
2. Providing adequate public notice of solid waste advisory committee meetings;
3. Establishing a comment period during which citizens can submit written comments on proposed plan revisions or ordinances;
4. Holding public forums on solid waste management issues.
5. Distributing brochures or other materials.
6. Soliciting ideas from citizen and public interest groups.



B. SOLID WASTE ADVISORY COMMITTEE

The solid waste advisory committee mandated by RCW 70.95.165 is an on-going committee. While it may initially be established to help prepare a solid waste management plan, the law provides that its duties are much broader, and are "to assist in the development of programs and policies concerning solid waste handling and disposal and to review and comment upon proposed rules, policies, or ordinances prior to their adoption." Each committee is to consist of a minimum of nine members who must represent a balance of interests including, but not limited to, citizens, public interest groups, business, the waste management industry, and local elected public officials. The committee is an advisory body only. The committee makes recommendations to the local governing body, which will then make final decisions after considering committee recommendations and other available information.

The committee should elect its own chairperson, adopt its own bylaws, and conduct its own meetings. Because the situation in each jurisdiction will be slightly different, the relationship of each solid waste advisory committee to the local governing body and to local staff will be different. Even so, there are several things that the committee can do to make itself more effective.

1. Develop and adopt bylaws and procedures, and abide by them.
2. Utilize good, reliable information, data, and maps, and make these materials available.
3. Insist that an adequate solid waste management plan be developed, refer to it, and assist in its implementation by making committee decisions and recommendations which are consistent with its goals and policies.
4. Annually re-examine its work as a committee, how well tasks are being accomplished, and how to do them better.
5. Meet periodically with the city council or county board to exchange ideas and to assess mutual objectives.
6. Consider holding a public forum every year or so, at which the committee can share ideas and ask people for their opinions on what they want done.
7. Attend short courses on new solid waste management techniques or the latest in solid waste law.
8. Take tours as a committee to see what others are doing.
9. Invite elected officials to meetings to share information and promote communication.

10. Appoint a committee representative to appear before the governing body when it is necessary to explain or promote a recommendation.
11. Lobby for good solid waste management planning.
12. Take time to orient new committee members to the job.

C. DEPARTMENT OF ECOLOGY

The Department of Ecology is responsible for the preparation and periodic review and revision of the state solid waste management plan. Ecology's role in the local solid waste planning process is to work cooperatively with local governments during plan development and to provide technical assistance to cities and counties. Ecology reviews and comments on preliminary and final drafts of local solid waste management plans, plan revisions, and plan amendments for conformance with applicable state laws and regulations, and approves or disapproves them. Ecology also reviews all permits for solid waste disposal sites or facilities issued by jurisdictional health departments. Permits are reviewed to ensure that the proposed site or facility conforms with all applicable laws and regulations, including the Minimum Functional Standards for Solid Waste Handling (WAC 173-304), and with the approved comprehensive solid waste management plan.

D. UTILITIES AND TRANSPORTATION COMMISSION

The Washington State Utilities and Transportation Commission (WUTC) regulates solid waste collection firms in unincorporated parts of the state and in cities which choose not to provide collection service. WUTC regulates solid waste haulers (certificate holders under Chapter 81.77 RCW) to insure that they comply with state and local laws, including solid waste management plans and related implementing ordinances. Another aspect of regulation is to insure that the haulers' rates are not excessive to the ratepayer, yet also give the firm an opportunity to earn a fair profit. Haulers are required to use rate structures and billing systems consistent with the solid waste management priorities set forth in RCW 70.95.010. WUTC staff will provide local governments with the franchise information required by RCW 70.95.090(5), and will provide other technical assistance as needed.

The WUTC is required by RCW 70.95.090(8) to prepare guidelines for local governments to use when assessing the impact of their solid waste management plans on the costs of solid waste collection. WUTC staff also participate in the plan review process. They review "the plan's assessment of solid waste collection cost impacts on rates charged by solid waste collection companies regulated under Chapter 81.77 RCW," and must advise the local government and Ecology of the probable effect of the plan's recommendations on rates within 45 days of their receipt of the draft plan (RCW 70.95.096).

E. JURISDICTIONAL HEALTH DEPARTMENT

The jurisdictional health department is responsible for issuing permits for solid waste disposal sites or facilities. When the health department receives an application for a permit to "establish, alter, expand, improve, or continue in use a solid waste disposal-site," it shall refer one copy of the permit application to Ecology, which shall report its findings to the jurisdictional health department. The health department shall investigate every application to determine "whether an existing or proposed site and facilities meet all applicable laws and regulations, and conforms with the approved comprehensive solid waste management plan, and complies with all zoning requirements." (RCW 70.95.180) The jurisdictional health department shall approve or disapprove every permit application within ninety days of its receipt.



V. PLANNING PROCESS

This section outlines a recommended planning process. Use of these steps is not mandatory, but may help to facilitate the process. Some of the steps are specifically required by Chapter 70.95 RCW. These include the establishment and utilization of the Solid Waste Advisory Committee (SWAC), the establishment of formal agreements between jurisdictions which intend to participate in a single plan or which intend to prepare a joint plan, adoption of the plan by all participating jurisdictions, and approval by the Department of Ecology.

- Step 1. **Determine Planning Responsibility.** Designate the government unit(s), which is responsible for developing and implementing the local solid waste management plan. If two or more jurisdictions intend to write a joint plan, or if a jurisdiction intends to write a plan in which other jurisdictions will participate, interlocal agreements, which comply with the provisions of Chapter 39.34 RCW, should be established.
- Step 2. **SWACs.** Establish, re-establish or continue a SWAC.
- Step 3. **Determine Planning Area.** When deciding on the size of the planning area, the possibility of a multi-county plan should be seriously considered. If a planning area imports/exports waste, this fact should be discussed in the plans of all jurisdictions involved in the import/export. It should be noted that plans involving multiple jurisdictions would require interlocal agreements to facilitate interjurisdictional planning and facility operation. The lead agency in a planning area should encourage the participation of all local jurisdictions.
- Step 4. **Develop Draft Scope of Work.** Develop a draft scope of work and a timeline. It is not uncommon for plan development and adoption to take as long as two to three years, although this varies considerably between jurisdictions. The planning jurisdiction, in developing the scope of work, should consider combining the plan or the planning process with the development of other local plans. Explore the possibility of obtaining funding for the planning process. Possible funding sources include plan participants, imposition of a fee on solid waste collection services as specified by RCW 36.58.045, and Department of Ecology grants, when available. A scope of work is required if an Ecology grant is used to develop the plan.
- Step 5. **Scope of Work Review.** Solicit input on scope of work from Ecology, local government legislative bodies, citizens, public interest groups, and the SWAC. Following their input, finalize the scope of work.
- Step 6. **Develop Preliminary Draft Plan.** Develop a preliminary draft plan or plan revision using these guidelines, specifically, Section VI--Contents of Plan.

Step 7. **SEPA Compliance.** Once the preliminary draft plan has been prepared, an Environmental Checklist should be completed and the SEPA review process begun. Public involvement in the SEPA process can occur simultaneously with public review of the draft plan.

Step 8. **Public Review of Preliminary Draft Plan.** The preliminary draft(s) should be reviewed by the local SWAC; the local Planning Department, Health Department and Public Works Department; the public; and appropriate local jurisdictions, including all the cities, towns, and counties participating in the plan.

A comment period, lasting a minimum of 30 days after the notice of publication, should be provided for written comments on draft plans. Draft plans should be available from local government offices and local libraries during the entire 30-day period.

During the comment period, the planning jurisdiction's legislative body should hold a public hearing(s) on the draft plan. Notice of the time, place and purpose of any public hearing should be given by publication in a newspaper of general circulation in the planning area at least five days prior to the hearing.

Step 9. **Address Public Comments on Preliminary Draft Plan.** Revise the preliminary draft plan as necessary to address comments received. If there have been substantial changes to the plan, the public comment period and hearings on the plan should be repeated.

Step 10. **Ecology Review of Preliminary Draft Plan.** Submit the preliminary draft plan to the Department of Ecology for preliminary review. Interlocal agreements between jurisdictions participating in the plan, evidence of SWAC participation in the planning process, and documentation of SEPA compliance must be included as part of the submittal. (Ecology's plan review process is discussed in Chapter VII of these guidelines.)

Step 11. **Address Ecology Comments on Draft Plan.** Revise the draft plan to address comments received from Ecology.

Step 12. **Ecology Review of Revised Draft Plan.** Submit the revised draft plan to the Department of Ecology for review. In addition to the revised copies of the draft plan, this submittal must include a summary of the responses to Ecology's comments and any additional changes to the draft plan, which have been made. If Ecology indicates that a draft plan is ready for local adoption and submittal for final review, go on to Step 13. Otherwise, go back to Step 11.

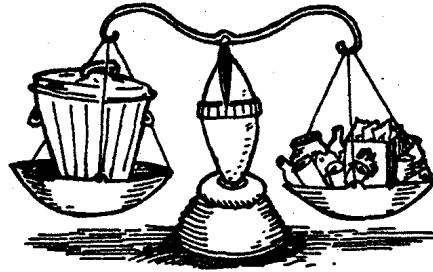
Step 13. **Local Adoption of Plan.** Participating jurisdictions should adopt the plan within a reasonable time frame. The time frame for adoption should be included in a formal

interlocal agreement. Each local government participating in the plan should adopt the plan at a public meeting. If one or more persons request a public hearing, one should be held before adoption of the plan. Resolutions of adoption should be obtained from all jurisdictions participating in the plan.

- Step 14. **Final Plan Review.** Submit the final draft plan to the Washington Department of Ecology for its final approval. A summary of any changes to the draft plan which occurred as part of the adoption process and resolutions of adoption by jurisdictions participating in the plan must be submitted with the plan. Ecology will notify the planning jurisdiction of receipt of the plan and will approve or disapprove the plan pursuant to RCW 70.95.094. Chapter VII describes the Ecology review process.
- Step 15. **Plan Implementation.** Implementation of the plan. Facilitate implementation of plan recommendations.
- Step 16. **Plan Maintenance.** The plan should be periodically evaluated to determine whether recommended actions have taken place and whether they have been effective in reaching the goals of the plan. The mandatory review schedule is outlined in RCW 70.95.110 and in Chapter III of these guidelines.
- Step 17. **Plan Revisions and Amendments.** Subsequent plan revisions and plan amendments should be developed, reviewed, and approved according to the steps described above.

VI. CONTENTS OF PLAN

This section outlines the elements, which should be included in solid waste management plans. They are presented in the order in which they might logically appear in a plan. The elements listed are either specifically required or are implied by Chapter 70.95 RCW. All plans must describe how the local government plans to enforce and implement the Minimum Functional Standards (Chapter 173-304 WAC) and manage its waste in accordance with the solid waste management priorities.



A. INTRODUCTION

1. Identify local governments to be included in the plan (see Section V) and the local government(s) designated to develop and implement local solid waste management plans.
2. Summarize the general goals and objectives of the plan. Include any general policies concerning solid waste management pertaining to the planning area. Discuss how the local waste reduction and/or recycling goals will fit with the state 50% recycling goal.
3. Identify how the plan relates to other local plans, such as the hazardous waste, comprehensive land use, water quality, ground water, and water supply plans.
4. Review the planning history of the jurisdiction. Include a list of the previous solid waste management plan's recommendations, if any. Indicate which recommendations have been implemented and, if some have not been implemented, explain why. Discuss the effectiveness of the recommendations, which were implemented.
5. Briefly describe the physical, natural, environmental, demographic, and socio-economic conditions of the planning area, with regard to how these conditions may impact solid waste management in the local area.
6. Include a schedule for plan review and revision. RCW 70.95.110 outlines the mandatory review schedule. Plan amendments should go through the same local review and adoption process and through the same Ecology review and approval process as the revisions required by state law.



B. WASTE STREAM DESCRIPTION

1. Identify the distribution, sources, and quantities, including seasonal fluctuations, of municipal, industrial, and agricultural wastes, sludges, problem wastes, and any other applicable wastes. Use up-to-date information and, where applicable, relate this to the population density of the area. A map may be a useful tool.
2. Describe the composition of the waste generated from residential and commercial sources and review waste generation trends. This information is especially important for designing a waste reduction and recycling program. The discussion of waste composition should include:
 - estimated composition and quantity of recyclables and compostables in the waste stream;
 - the existing recycling rates for each material type; and
 - estimated composition and quantity of nonrecycled waste requiring disposal.

The discussion of waste generation trends should include:

- an estimate of per capita waste generation for six and twenty years; and
- consideration of possible changes in waste composition.

The state will provide the following waste stream information that will be available for local governments to use:

- a) annual survey of recycled waste and disposed waste;
- b) biennial waste composition studies.

The state will perform residential and commercial waste composition surveys in alternating years. This composition data will be available by waste generation area (WGA), as described in the Best Management Practices Analysis for Solid Waste Handling. The recycling data will be available by county.

3. Describe any inter-county and/or inter-state transfer of waste that occurs in the planning area.

C. SOLID WASTE HANDLING METHODS AND SYSTEMS

1. General Requirements

Each solid waste handling system should be discussed in a separate chapter or section of the plan. A complete analysis of each system, including the recommendations and the implementation schedules should be discussed before moving on to the new system. The

discussion in each section should not be developed in isolation from the other systems but instead should take into account the conclusions from all the systems discussed earlier.

Under the discussion of each type of solid waste handling method mentioned below (C.1-11), including waste reduction and recycling, the following should be included.

- *An inventory of all existing conditions, practices, programs and facilities in the area. This includes governmental and private activities. Any information available regarding abandoned sites or illegal facilities should be included in this inventory.*
- *A discussion of the present and future needs and opportunities for improved solid waste handling in the area. All options should be considered. Describe deficiencies in meeting the minimum functional standards (Chapter 173-304 WAQ and the additional requirements for a waste reduction and recycling program, as specified in RCW 70.95.090. If variances for disposal sites or handling facilities have been issued, copies of those variances should be included in the plan. If application for a variance is being considered, the plan should include a discussion of what will happen if a variance is denied as well as if it is approved. Any variances which have been issued should be included in the plan.*
- *An evaluation of the options. Criteria should be developed to help review which options will best serve a community's needs and meet its goals. Criteria should relate to the community's solid waste management and planning goals. Possible criteria include environmental protection, compatibility with state waste reduction and recycling policies, whether it is allowed under current laws or contracts, public acceptability, technical feasibility, risk of failure and cost impacts, including avoided disposal costs and environmental savings. (See Washington Utilities and Transportation Commission (WUTC) cost assessment guidelines for recommended methods to determine cost impacts.)*
- *Recommendations. Explain the rationale for making a particular recommendation and why certain alternatives were not chosen. If the plan's recommendations are conditioned on decisions to be made by a governing body with jurisdiction over the solid waste handling system, those decisions should be made during the plan adoption process. Explain why certain decisions may be deferred and provide a schedule for those decisions.*
- *An implementation schedule which includes a six year operating and capital cost assessment and a twenty-year needs and opportunities plan. Include "a plan for financing both capital costs and operational expenditures of the proposed solid waste management system," as required by RCW 70.95.090. Once again, see WUTC cost assessment guidelines. Decisions to be made in order to implement the plan include financial arrangements, organizational structure, market identification and procurement of recycling services, composting and energy recovery programs, collection methods, public education, siting process/criteria, and time frames for*

development. Discuss the responsibilities each participating jurisdiction will have for implementation and outline timelines for making decisions. A graphic may be useful.

- *A methodology and schedule for evaluation of the effectiveness of individual programs and for implementation of the plan as a whole. Ecology Guidelines for Annual Reporting of Solid Waste Information, available after June 1990, require the collection of certain data in a consistent manner. Provision should be made to collect this data and any other data, which would be useful for effective evaluation.*

It is important to show that the solid waste management system proposed in the plan will provide for stable and dependable handling, processing, and disposal of solid waste throughout the 20-year planning period. If this is not the case, the plan should outline a backup solid waste management system to which the jurisdiction can switch. For example, if a jurisdiction has a contract to send its waste to an incinerator, but that contract contains a clause which would allow either party to back out of the contract with 90 days notice, the jurisdiction's solid waste management plan must outline, an alternative solid waste management system which the jurisdiction could implement within the 90 days.

2. Waste Reduction and Recycling

Throughout this section of the plan, the goals stated in Chapter 70.95 RCW, as amended, should be kept in mind. They are:

- "It is the state's goal to achieve a fifty percent recycling rate by 1995."
- "Steps should be taken to make recycling at least as affordable and convenient to the ratepayer as mixed waste disposal."
- "Source separation of waste must become a fundamental strategy of Solid waste management."

The intent of Chapter 70.95 RCW, as amended in 1989, is to maximize reduction and recycling in the state. It is not expected that every jurisdiction will be able to recycle 50% of its waste stream by 1995. However, some jurisdictions may be able to recycle more than 50%. Each community will be evaluated on progress in meeting this statewide goal based on such factors as local waste characteristics and market conditions. Therefore, each jurisdiction should set its own goals, which collectively will allow the state to recycle 50% of its wastes by 1995.

What wastes are to be included in this 50% goal? To measure this rate accurately, it has been determined that only municipal and commercial recyclables, including any organic wastes which are processed for recycling or composting are included in this actual statewide tally (Use material list in Best Management Practices Analysis and updated state recycling surveys. Future recycling rate estimates will include the organic fraction as

well.) Waste reduction efforts should only be included in a tally if a jurisdiction has established a method to measure achieved waste reduction, which is acceptable to Ecology. Recycling of other wastes, such as sewage sludge, industrial waste, asphalt, and demolition wastes are encouraged, but are not to be included in the statewide tally. Jurisdictions should set separate waste reduction and/or recycling goals for any of those wastes which are a solid waste problem in their communities, especially those wastes which affect a community's disposal capacity.

Cities and counties are legislatively mandated to begin implementing programs to collect source separated materials no later than one year following the adoption and approval of the waste reduction and recycling element, and to have these programs fully implemented within two years of approval. However, local governments are encouraged to begin aggressive implementation of waste reduction and recycling programs as soon as possible.

There are many types of waste reduction, source separation and recycling programs, and very specific legislative mandates for these types of programs, so this discussion in the plan should be quite detailed. The following programs are to be discussed: household collection programs; urban drop-off buy-back programs (i.e. alternative to urban household collection, if appropriate); multifamily recycling programs; rural recycling programs; nonresidential waste monitoring programs; yard waste collection programs; waste reduction and recycling education programs; and, if applicable, mixed waste recycling programs. (Please note: An urban area may choose to pick up recyclables at the household and may also have drop-off and buy-back centers to handle some materials or to offer residents a choice.) A complete analysis of each applicable program, including existing conditions, needs and opportunities, evaluation of the possible options, recommendations, and implementation schedules should be included.

According to state law, source separation of recyclable materials is the preferred method for recycling. Consequently, source separation programs should be planned prior to mixed waste recycling programs, and should be given priority over mixed waste recycling programs. Before any recycling programs are considered, a community must designate urban and rural areas, and what designated materials are to be recycled.

In addition to the state's 50% recycling goal and any jurisdictions waste reduction and recycling goals, these guidelines specify Ecology's evaluation criteria for waste reduction and recycling programs. The evaluation criteria are outlined in the following table. If a program is not designed to meet the intent of the evaluation criteria, the plan will not be approved by Ecology. To assist local governments with design of their programs, Ecology will publish data from existing Washington programs when it becomes available (in the reports submitted to Ecology under RCW 70.95.280).

TABLE 1: Waste Reduction and Recycling Program Design Criteria

Collection Program¹	Performance Achieved by Existing Programs²	Ecology's Criteria for Approval of Proposed Programs³
1. Household Collection (i.e. curbside) in urban areas	<ul style="list-style-type: none"> 30-40 lbs. of recyclables collected per month, per eligible account, or 10-20% residential waste diverted⁴ (range is based % of newspaper in waste stream and whether mixed paper is collected or not) 	<ol style="list-style-type: none"> All urban single-family and small apartment complexes eligible to participate Materials collected consistent with plan list or process to develop list Consistent with local plan goals Waste diversion potential from program is maximized based on local waste stream characteristics and markets Designed to achieve performance which is comparable to existing programs (consistent with <u>Guidelines for Reporting of Solid Waste Information</u>)
2. Alternative to Household Collection in urban areas	<ul style="list-style-type: none"> Good data not yet available 	<ol style="list-style-type: none"> 90% of residents live within 1 mile of a fixed recycling center which is open or available for use Additional waste reduction/recycling programs (in addition to those required by RCW 70.95) to compensate for lower recovery/participation rates than with household collection programs. The combined recovery rates of the residential recycling program and the additional programs should be higher than the recovery rate of a household collection program alone. Meets criteria b. through e. for household collection programs
3 Multifamily Housing Recycling Programs in urban areas.	<ul style="list-style-type: none"> Good data not yet available 	<ol style="list-style-type: none"> For complexes with up to 100 units: <ul style="list-style-type: none"> Household collection of recyclables or 90% of residents live within 1 mile of a fixed recycling center which is open or available for use during normal working hours For complexes with 100 or more units: <ul style="list-style-type: none"> Household collection of recyclables or Fixed on-site recycling facility which is open or available for use during normal working hours Meet criteria b. through e. for household programs.
	<ul style="list-style-type: none"> Good data not yet available 	<ol style="list-style-type: none"> Household collection of recyclables or A fixed recycling center at convenient locations open or available for use during normal working hours for every 5-10,000 population, including any recycling facilities at solid waste facilities, and A fixed recycling center open or available during normal working hours at or near every solid waste facility which is open to the public Meets criteria b. through e. for household programs
5. Yard Waste Collection Programs in urban and rural areas	<ul style="list-style-type: none"> For household collection in western Washington, 40 lbs. per eligible account per month, averaged over 12 months Eastern Washington data not available 	<p>a. Option 1 Urban areas: 6-9 months per year household Collection program (6 months for east of the Cascades; 9 months for west of the Cascades) and meets criteria a. through e. for household programs</p> <p>Rural areas: Rural recycling program (see #4, above)</p> <p>b. Option 2 Most cost-effective method and meets criteria b. through e., for household programs</p>
6. Overall Waste Reduction/Recycling Program/Goals for comprehensive plans	<ul style="list-style-type: none"> Extremely variable, based on types of programs to be implemented; types of waste streams, such as certain types of commercial waste; local market conditions for materials such as waste paper, plastics, and compost; and participation in programs 	<ol style="list-style-type: none"> Local waste reduction and recycling goals make substantial progress toward helping the state to meet the 50% recycling goal Demonstrates sincere commitment to maximizing waste reduction and recycling and the opportunity to recycle Realistically achievable within the plan's implementation schedule Implements required programs which meet Ecology criteria Recognizes unique needs and opportunities

¹ Programs which are required by RCW 70.95.090.

² Source of information: 1990 WDOE survey of Washington recycling collection programs.

³ Programs must be designed to meet intent of criteria; otherwise, the plan will not be approved.

⁴ Assumes all households eligible to participate (and no multi-family housing or commercial waste in area).

A) Waste Reduction

Waste reduction is the top priority waste management technique for the state, and therefore is a critical element of any plan. To emphasize waste reduction, each plan submitted by a local government should address waste reduction as an issue separate from recycling. In addition, specific waste reduction goals should be set.

- 1) Use the following lists of waste reduction programs as possible options (Programs need not be limited to these options. For some of these programs, especially public awareness education and school curricula, Ecology has many resources' and materials available, such as the Away with Waste school curriculum, which would be useful for local governments to use in implementing these programs.):

Local Program Options:

- a) Public awareness education (such as encouraging consumers to utilize secondhand, rental and repair businesses, and bulk buying);
- b) School curricula;
- c) Commercial, retail, and industrial education, and/or technical assistance;
- d) Variable garbage cans rates (additional charges for additional cans);
- e) Procurement standards for durability, recyclability, reusability, and recycled material content;
- f) On-site composting (includes education, technical assistance and demonstration projects);
- g) Product or product packaging prohibitions (after July 1, 1993);
- h) Container product or packaging deposits (after July 1, 1993);
- i) Product use and reuse standards;
- j) Encouragement of state and/or federal programs;
- k) Waste exchanges;
- l) In-house programs, such as employee education, increased use of scrap paper, increased use of electronic mail, increased double-sided copying and printing, cloth towels or electric hand dryers in restrooms, and decreased use of non-recyclable paper, such as fax paper;
- m) Awards and other forms of public recognition.

State or Federal Program Options:

- a) Container, product, or packaging deposit legislation;
- b) Tax incentives;
- c) Product or product packaging prohibitions;
- d) Warranties on durable goods (consumer purchasing education could be conducted at local level);
- e) Product labeling for recycled content and recyclability;
- f) Standardized packaging;
- g) Product use and reuse standards;



- h) Variable can rate structures. (additional charges for additional cans).
- 2) Evaluate all local waste reduction options and prioritize these options in accordance with the needs and opportunities of the community. A comprehensive waste reduction program should address all waste generation sectors that exist within the community, including commercial and residential generators. Any waste reduction program should include an educational component, aimed at all appropriate waste generators, since waste reduction and recycling education is a required element of the plans. State and federal programs should be examined to identify barriers, which may inhibit implementation of local programs.
 - 3) Recommend viable waste reduction programs. These recommendations should be action-oriented and should include specific operations such as distributing a certain number of composting bins, writing Legislative or Congressional members about identified state or federal program implementation barriers, and/or conducting a number of commercial consultations. If a variable can rate is recommended and local haulers are regulated by the WUTC, the plan should very specifically discuss the desired structure of this rate and should include a plan for coordination with local haulers and the WUTC for its implementation.
 - 4) Discuss how your jurisdiction will measure the results of waste reduction efforts. At a minimum, solid waste generation rates projected during plan preparation should be compared with actual generation of waste over the six and twenty year planning periods. Other methods of measurement include sampling pilot households and documentation of efforts by businesses and households.



B) Urban and Rural Designation (Minimum Recycling Service Levels)

The purpose of urban and rural designations is to determine minimum levels of service for recycling programs. If a jurisdiction has an up-to-date land-use plan or zoning ordinance, its urban and rural area designations should be the starting point for the discussion of urban and rural designations in the plan. If there is no up-to-date land-use plan or zoning ordinance, then other local plans, if up-to-date and applicable, should be considered as a starting point.

Some of these plans contain data that is more valid or applicable than others. For example, census data may be out of date if an area has experienced a high degree of population change.

The Washington State Department of Transportation's urban area boundaries are based on the last census date unless they are updated by request of the local government.

Some of the best information may be garbage collection service data, such as routes, tonnage, and stops per road mile. Local recyclers may also have some useful information regarding possible curbside routes and current drop-off/buy-back locations. Work closely with franchised haulers, city collection companies, and utilities and local recyclers to obtain information pertinent to urban and rural designations.

- 1) Use the following sources of information when determining urban and rural areas (analysis need not be limited to these sources):
 - a) County, city and/or regional land-use plan and/or zoning ordinances;
 - b) Best Management Practices Analysis;
 - c) Any local utility service plans for sewer, water, electricity and other utility services or the urban service boundaries around cities for these utilities or other services, such as fire and police;
 - d) Any other applicable local plan for open space, transit, etc,
 - e) Neighboring jurisdictions' solid waste management plan designations;
 - f) State forest practices and regulations regarding future urban development;
 - g) U.S. Bureau of Census' "designated places" in urbanized areas;
 - g) Washington State Department of Transportation's urban area boundaries;
 - h) Washington State Data Book, published by Office of Financial Management, for information on population and density;
 - i) Information on garbage collection, such as routes, tonnage and stops' per road mile if obtainable from the haulers and cities;
 - j) Regional agencies, including Councils of Governments and federal agencies, including federal document repositories;
 - k) County Assessors' offices information on property ownership and use;
 - l) Department of Ecology's Curbside Recycling Handbook anticipated date of publication is August 1990;
 - m) Topographic limitations, such as rivers, mountains, etc;
 - n) Public or private access to roads or rights of way; and
 - o) Local planning departments or planning commissions;
 - p) Common sense.

2) Follow the steps listed below to designate urban and rural areas:

- a) Local governments shall propose criteria to determine the designations (RCW 70.95.092). Some criteria to be considered when drawing the boundary lines are: population density; population; anticipated population growth; quantity of residential waste picked up at households; the presence of other urban services; commercial and industrial properties; property lines; and logical service areas. Locally identified "suburban areas" (less dense residential areas) are to be considered urban.

The criteria above, and any information on existing and potentially effective household collection programs, should be used to help establish numerical values for the criteria. Certain criteria are more important and should be used as the primary criteria.

- b) Once the criteria to be used and the numerical values of the criteria have been set, possible boundaries should be drawn on maps. There may be small islands within urban and rural areas that should be ignored for contiguous boundaries. Map overlays would be a helpful tool to use here.
- c) The proposed area boundaries should be evaluated by the following tests:
 - i) Appears to meet the criteria selected by local government, including any performance levels that have been set;
 - ii) Consistency with other urban and rural designations made by other up-to-date plans or set service levels in the area;
 - iii) The percentage of population that would be designated urban is essentially the same even after modification of the boundaries to form logical service areas;
 - iv) Service areas fit logically other city/county services, as applicable (water, fire, garbage, etc.);
 - v) Rural "islands" in urban areas (and vice versa) are minimized by map review, discussion with others, and on-site inspection of the areas in question; and
 - vi) Common sense.
- d) After the boundaries have been evaluated by the previous tests, they should be modified as necessary. They should also be reviewed as part of solid waste management plan revisions.

C) Designation of Recyclable Materials

The definitions of "recycling" and "recyclable materials" in RCW 70.95 indicate that a material may be recyclable if it yields a price on the market or it has a beneficial end use.

- 1) Use the following list of recyclable materials as the starting point for development of the local list. These recommended materials are based on findings of the Best Management Practices Analysis. Ecology will review this list regularly, and update it when needed. The 1988 list for stable statewide markets is as follows:

- newsprint
- corrugated containers
- high grade paper
- tin cans
- metals
- aluminum cans
- container glass
- refillable glass



The current list of materials with potential market capacity in the Northwest, Southwest and Puget Sound Waste Generation Areas:

- mixed waste paper
- PET bottles (plastic, 2-liter pop bottles) (Subsidized program guaranteed through February 1991.)
- HDPE bottles (plastic milk jugs)
- plastic packaging/film

The current list of materials, with potential capacity with avoided disposal costs:

- yard and garden waste, especially for Northwest, Southwest, and Puget Sound Waste Generation Areas;
- white goods (used refrigerators, dryers, washers, etc.).

The list was developed after a comprehensive review of market capacities for each of the eight waste generation areas of the state. Factors such as transportation and handling costs, historical data on market transactions, and surveys of potential end-users were analyzed to create the list. (For more information see the Best Management Practices Analysis, Volume II, Section C, on Market Capacity.)

Other materials which may be recycled are:

- woodwaste, including land clearing debris
- demolition waste
- food waste

- asphalt
- sludge
- tires
- used oil
- batteries

2) Develop the local list based on the following variables:

- a) Potential for significant waste stream diversion;
- b) State and local recycling goals;
- c) Local market conditions, including market risk;
- d) Continuity in materials collected;
- e) Regional approach to recycling programs regarding education, processing, and market development;
- f) New technologies and innovative program approaches;
- g) Environmental impacts of disposal of specific materials; and
- h) Adequate markets or capacity to consume composted or processed yard waste, according to RCW 70.95.090(7)(b)(iii). (See I., Yard Waste Collection Programs, for a more complete discussion).

The list of recyclable materials or a process to develop the list (i.e. by ordinance or other method) is to be included in the plan.

- 3) Describe the markets and market risk including the following components: a list of existing recycling centers, locations of each, and materials handled; a list of recycling brokers whom existing recyclers may sell their recyclables, to, including locations; a list of processing centers (planned and existing capacity); a list of possible recycling markets for materials not handled by existing recyclers (e.g., compost, plastics, mixed paper); a description of strengths and weaknesses of those markets; a discussion of the general demand for various materials; and a summary of the general market conditions and their probable future.
- 4) Discuss in the plan the process for potential modifications to the list of recyclable materials between plan revisions, or the process which will be used to develop such a list (such process may be an implementing ordinance). If a process for changing the list of recyclable materials is not described in the plan, and if a list of recyclables is included, it should be assumed that a plan amendment would be required in order to modify the list.
- 5) Describe the collection methods for each recyclable material in the plan, if possible. If the collection methods are not specified, the process for designating the collection methods should be outlined in the plan. Some general information to be considered when determining collection methods is that household collection programs provide a good opportunity to collect materials other than newspaper and aluminum to maximize waste diversion. Low value materials, such as tin cans and mixed waste paper are often not collected by private recyclers, yet people will recycle these materials if the opportunity is

provided. Collection of these low value materials may be economical when avoided disposal costs are considered. Certain low-density materials, such as cardboard and plastic, may be easier to collect through a drop-off system, especially when those materials are generated by the residential sector.

D) Household (Curbside) Collection of Recyclable Materials

If the collection program is convenient and residents are informed on how to participate, high participation rates and high material recovery rates will usually result. Programs with high recovery rates and high participation rates are usually more economical. More information is available on design of household programs in Ecology's handbook available after August 1990.

- 1) Use the list below to help design a successful household collection program which will pick up materials designated by a local jurisdiction as recyclable with a household program. (This section refers only to the non-organic fraction of the waste program; yard waste collection programs are discussed later in these guidelines.) It is recommended that a jurisdiction try to maximize participation and recovery rates through adoption of one or more of these strategies.

- weekly collection
- containers provided to residents
- same day as trash collection
- education/promotion
- rate incentives/disincentives
- mandatory collection



- 2) Describe how the design of the program will meet the following criteria:
 - a) All urban. Single-family and small apartment complexes eligible to participate;
 - b) Materials collected are consistent with plan list or process to develop the list;
 - c) Consistent with local plan goals;
 - d) Waste diversion potential from program is maximized based on local waste stream characteristics and markets; and
 - e) Designed to achieve performance which is comparable to existing programs (data used should be consistent with the procedures outlined in the Guidelines for Annual Reporting of Solid Waste Information).

The best available data at this time indicates that good existing programs in Washington State are able to collect 30 to 40 pounds of recyclables per month per eligible account. (This range is based on the percentage of newspaper in the waste

stream and whether or not mixed paper is collected.) It has been estimated that such household programs would divert 10-20% of the waste generated per eligible household. This assumes that all households are eligible to participate, and that there is no multifamily or commercial waste in the area.

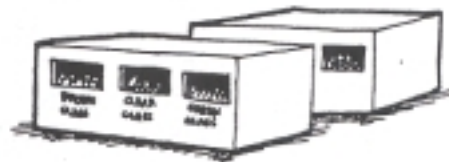
E) Urban Drop-off/Buy-back Program as Alternative to Household (Curbside) Collection

This section pertains only to jurisdictions which want to establish alternative programs (other than household collection) in urban areas. Alternative programs are intended for implementation in areas where household recycling may not be feasible or cost-effective. Ecology will determine the appropriateness of the alternative program proposed based on criteria discussed below (RCW 70.95.090(7)(b)(i)). However, urban jurisdictions are encouraged to provide urban drop-offs/buy-backs as well as household collection programs to maximize recycling in their jurisdictions. According to Chapter 70.95 RCW, it is critical to offer Washington residents the opportunity to recycle source-separated recyclables. Consequently, the only acceptable alternative to household programs are other programs to collect source-separated recyclables from the residential sector, such as drop-off and buy-back programs. (Compostables are not included here since there is a separate requirement for collection of yard waste.)

Alternative programs will usually be a comprehensive system of drop-offs and/or buy-backs. This comprehensive drop-off/buy-back system is to be much more intensive than the rural areas' drop-off/buy-back programs. Different types of household collection programs, based on frequency of collection, type of equipment, etc., as well as any proposed alternative programs, should be evaluated in this section of the plan. If jurisdictions within a planning area wish to adopt alternative to household collection programs, these criteria should be discussed in the plan for those jurisdictions.

- 1) Use the following criteria, as outlined in RCW 70.95.090 (7)(b)(i), to evaluate the option of establishing an alternative program to a household recycling program:
 - a) Anticipated recovery rates;
 - b) Level of participation;
 - c) Availability of environmentally sound disposal capacity;
 - d) Access to markets for recyclable materials;
 - e) Unreasonable cost impacts on the ratepayer over the six-year planning period;
 - f) Utilization of environmentally sound waste reduction and recycling technologies; and
 - g) Other factors as appropriate.

These criteria are discussed below.



- a) Anticipated recovery rates and level of participation should be estimated for a household program and an alternative to household program in the urban area. These

rates should be estimated in a manner that is consistent with Ecology Guidelines for Annual Reporting of Solid Waste Information, available after June, 1990.

- b) The availability of environmentally sound disposal capacity has been defined to mean that the planning area must own or have a firm, clear access to twenty years of disposal capacity that meets the state functional standards (or has a WDOE approved variance from those standards). If the facility is out of state, it must meet the other state's or country's standards. This is consistent with the 20-year disposal capacity required for plan approval (see VI.C.1, General Requirements).
 - c) The access to markets for recyclable materials should be analyzed as one of the major factors to determine if a household collection program or proposed alternative is reasonable for the urban areas in the planning jurisdiction. This discussion should tie back to the determination of recyclable materials discussion.
 - d) Costs for a household collection program and an alternative program should be analyzed to determine cost impacts over the six-year planning period. These, costs should be compared to the jurisdiction's solid waste system costs, including collection and disposal posts. (See Best Management Practices Analysis, Volume II for example of system costs.) Calculations should include the estimated monthly cost per eligible household for the curbside service. WUTCs cost assessment guidelines, available after June 1990, may be useful here. Information from item a) should be used here so the benefits of a program, such as recovery and participation rates, are compared to costs.
 - e) If a jurisdiction is implementing other programs not required by Chapter 70.95 RCW, such as commercial recycling, composting of other types of waste besides yard waste, dump and pick operations, or mixed waste processing systems, then these programs and their anticipated recovery rates and participation rates should be outlined in this section of the plan. These programs are not considered to be alternative to household programs. However, the anticipated recovery rates of these programs should be discussed in relation to the proposed alternative.
- 2) Describe how the design of the program will meet the following criteria:
- a) 90% of residents live within 1 mile of a fixed recycling center that is open or available during normal working hours;
 - b) Additional non-required waste reduction/recycling programs (i.e. commercial recycling, mixed waste processing, and, if not required by economic analysis, yard waste collection programs) to compensate for lower recovery/participation rates than with household collection programs (The combined recovery rates of the residential recycling program and the additional programs should be higher than the recovery rate of a household collection program alone.);

- c) Materials collected consistent with plan list or process to develop list;
- d) Consistent with local plan goals;
- e) Waste diversion potential from program is. maximized based on local waste stream characteristics and markets; and
- f) Designed to achieve performance, which is comparable to existing programs (data used should be consistent with the procedures outlined in the Guidelines for Annual Reporting of Solid Waste Information).

Currently, there is very limited data available on the performance achieved by programs of this type. Better data should be available in the future.

F) Multifamily Housing Recycling Programs

This section only pertains to designated urban areas, which have multifamily housing. Multifamily housing is a significant portion of our state's housing stock. Since it is important that all state residents have the opportunity to recycle, multifamily housing should also be served by source-separated recycling programs.

- 1) Use the following list of optional multifamily recycling programs, which should be considered in developing local plans:

- a) Drop-off within building complex;
- b) Drop-off/buy-back near building, complex;
- c) Household;*
- d) Door to door service within the building complex;
- e) Mobile recycling centers in addition to the fixed centers.



* Multifamily units should be serviced by existing household (curbside) collection programs, especially for complexes with less than 20 units or units which have individual garbage cans.

- 2) Discuss implementation of this program, including any legal issues to be dealt with, and other related issues, such as building and fire code changes, to facilitate collection in new and remodeled multifamily housing, and any special promotion/education efforts needed for effective multi-family recycling programs.
- 3) Describe how the design of the program will meet the following criteria:
 - a) For complexes with up to 100 units:

* Household collection of recyclables, or

- * 90% of the apartment dwellers live within 1 mile of a fixed recycling center which is open or available for use during normal working hours.

For complexes with more than 100 units:

- * Household collection of recyclables or
- * Fixed, on-site recycling facility which is open or available for use during normal working hours.

- Materials collected consistent with plan list or process to develop the list;
- Consistent with local plan goals;
- Waste diversion potential from program is maximized based on local waste stream characteristics and markets; and
- Designed to achieve performance, which is comparable to existing programs (data should be consistent with the procedures outlined in the Guidelines for Annual Reporting of Solid Waste Information).

Currently, there is very little data available on the performance achieved by existing programs of this type. Better data should be available in the future.



G) Rural Recycling Programs

Ideally, recycling collection should mirror garbage collection, and jurisdictions are encouraged to plan such a system. However, this may not be financially possible in the rural areas of the state at this time, so it is especially important that any drop-off/buy-back system be designed to be convenient to the residents.

1) Some possible rural recycling programs are:

- * Separate household collection, especially if second-hand or existing equipment is used;
- * Combined household collection of garbage and recyclables, (racks on trucks, trailers on trucks, bags of recyclables in back of packer truck, etc.);
- * Drop-box/buy-back recycling centers;

- * Mobile recycling centers in addition to the fixed centers; and
- * Community service programs, which collect recyclables.

2) Describe how the design of the program will meet the following criteria:

a) Household collection of recyclables; or

A fixed recycling center open or available for use during normal working hours for every 5,000-10,000 population, at convenient locations such as churches, grocery stores, service stations, and public meeting places, including any recycling facilities at solid waste facilities; and

A fixed recycling center open or available for use during normal working hours at or near every public or private solid waste facility open to the public.

- b) Materials collected consistent with plan list or process to develop the list;
- c) Consistent with local plan goals;
- d) Waste diversion potential from program is maximized based on local waste stream characteristics and markets; and
- e) Designed to achieve performance, which is comparable to existing programs (data should be consistent with the procedures outlined in the Guidelines for Annual Reporting of Solid Waste Information).

Currently, there is little data available on the performance achieved by existing programs of this type. Better data should be available in the future.



H) Nonresidential Waste Stream Monitoring/Commercial Recycling Programs

Chapter 70.95 RCW does not require jurisdictions to establish commercial recycling programs, but does require monitoring of the nonresidential waste stream where there is sufficient density to maintain a program. Nonresidential waste includes industrial waste, however, the focus of these programs should be on wastes handled or disposed by the jurisdiction's solid waste handling system. Jurisdictions are encouraged to establish commercial recycling, if possible, because commercial waste is over 20% of the state's

disposed waste stream, according to the Best Management Practices Analysis. In some jurisdictions, commercial waste makes up more than 50% of the disposed waste stream. This section addresses the monitoring requirements.

- 1) Describe how the nonresidential waste stream will be monitored. Local governments are encouraged to utilize recycling data collected by the state from recyclers and haulers rather than collecting the data themselves, since the state is enabled to obtain, maintain, and insure confidentiality of data (RCW 70.95.280). For local governments to obtain the state collected information, they will have to enter into an interlocal agreement with the state to protect confidentiality of data. (See B., Waste Stream Description, #3, regarding description of data that the state will compile.).
- 2) Discuss how a list of local recyclers and haulers who offer recycling collection services to the nonresidential sector will be maintained. This list should be kept current, and the information disseminated to nonresidential waste generators and to Ecology.

In addition, local governments may find it useful to:

- 3) Survey local businesses that generate solid waste and recyclables to establish current levels of recycling and determine where improvements can be made.
- 4) Conduct waste stream composition surveys to identify characteristics of the local nonresidential waste stream. This can be done for all waste sources, including governmental entities. A survey is especially beneficial in cases where the local jurisdiction is considering a major capital expenditure for a solid waste processing facility or is planning to embark on an ambitious nonresidential recycling program. Coordination of local waste composition surveys with the state studies is encouraged.

If a jurisdiction chooses to do a commercial recycling program, this program; any technical assistance efforts, including waste audits or consultations, should be discussed in this section of the plan.



I) Yard Waste Collection Programs

Programs to collect and process yard waste are critical to achieving high diversion rates throughout the state. (Home or on-site composting is a form of waste reduction and should be discussed in the waste reduction section of a plan.) These programs should target both residential and commercial generators of yard waste, including landscaping businesses, if they are to maximize waste stream diversion. Diverting yard waste from landfills is important because of the potential of yard waste to generate methane and organic leachates in landfills. Leaves and grass are also poor fuels for incinerators because of high moisture content.

The Best Management Practices Analysis states that there are potential markets. for yard and garden waste based on avoided disposal costs in all waste generation areas in the state, particularly in the Northwest, Puget Sound, and Southwest waste generation areas. The Best Management Practices Analysis also states that markets exist for yard waste as long as 1) the cost of processing is lower than the cost of disposal, and 2) the product can be put to beneficial use.

Yard waste can be used to produce a mulch for surface application or to produce a soil conditioner to be blended into soil. Potential uses include agriculture, landscaping, gardening, container plants, animal bedding, roadsides, mine reclamation, and interim or daily landfill cover. Remember that an end-use from which no revenue is derived may be an adequate "market."

A jurisdiction should choose a yard waste program based on either of the following methods (option 1 or 2, below). Option 1 is for those jurisdictions, which plan to establish yard waste collection programs, regardless; of cost. Option 2 includes a cost analysis.

- 1) a. Select household collection of yard waste as the collection method in urban areas and an intensive drop-off system for yard waste in rural areas (meeting performance standards described below). West of the Cascades, yard waste collection programs should operate at least nine months of the calendar year. East of the Cascades, yard waste collection programs should operate at least six months of the calendar year.
- b. Identify end-uses or markets for processed or composted yard waste.
- 2) a. Choose the most intensive cost-effective method. Evaluate whether the cost of a yard waste collection and processing program is equal to or less than the cost of disposing of yard waste in your area. This comparison should be made over the six and twenty year planning periods. Use a formula such as the following to calculate cost-effectiveness of a program:

$$\text{YW Collection} + \text{Transport to Processor} + \text{Processing} < \text{Cost of Mixed Waste Disposal} + \text{Collection} + \text{Transport to disposal site.}$$
Environmental savings and capacity savings should be considered when calculating costs of mixed-waste disposal (see definitions, Chapter VIII). Processing costs for yard waste would be the tipping fee paid to a private facility or the net public facility cost (including potential revenue from the sale of compost).

The following collection methods for yard waste should be examined in the above analysis:

- * Year-round or on-going household collection (monthly/weekly);
- * Year-round or on-going drop off (staffed. or unstaffed),
- * Seasonal curbside collection; and
- * Seasonal drop-off.

- b. Determine if there is adequate capacity to consume the majority of the material collected. This capacity analysis should include examination of potential local government use of composted/processed yard waste products as well as use by other government agencies and private businesses.
- c. Recommend the most intensive yard waste collection method in areas where the above tests of economic feasibility and capacity for use are met. More information is available on design of yard waste programs in Ecology's yard waste composting handbook, available after May 1990.

3) Describe how the design of the program will meet the following criteria:

a) Option 1 (no cost analysis):

- * For urban areas-household collection, 9 months of collection per calendar year is minimum for west of the Cascades; 6 months of collection per calendar year is minimum for east of the Cascades.
- * For rural areas (same as for rural recycling. programs)--.

Household collection of recyclables; or

A fixed recycling center open or available for use during normal working hours for every 5,000-10,000 population, at convenient locations such as churches, grocery stores, service stations, and public meeting places, including any recycling facilities at solid waste facilities; and

A fixed recycling center open or available for use during normal working hours at or near every public or private solid waste facility open to the public.

Option 2 (with cost analysis)

- * Most cost-effective method, according to the above formula.
- b) All residents in the applicable urban and rural areas eligible to participate;
- c) Materials collected consistent with plan list or process to develop the list;
- d) Consistent with local plan goals;
- e) Waste diversion potential from program, is maximized based on local waste stream characteristics and markets; and

- f) Designed to achieve performance which is comparable to existing programs (data should be consistent with the procedures outlined in the Guidelines for Annual Reporting of Solid Waste Information).

J) Education Programs

Local education and information are critical for the success of any waste reduction or/and recycling program. Education and information programs should address both the "how-to" and the "why it is important." These programs should be ongoing and should address both waste reduction and recycling (not just recycling). It is important to deliver education/information messages in many different ways because people use a variety of sources to get information. It is also important to target the diverse groups that may live in the planning area such as apartment dwellers, children, non-English speaking populations, home gardeners, low-income people, etc., and to design materials that will meet their needs.

Ecology has a statewide education and information program and has resources to assist with the design of local education and information programs. Ecology is publishing a waste reduction and recycling education and information handbook that expands upon the information provided below. It will be available in October 1990. In addition, many education and information projects can utilize the activities of existing organizations in the community (recycling centers, schools, clubs, other agencies, etc.).

1) Discuss the following in the plan:

- a) Education/information programs objectives;
- b) Target audiences, especially, in relation to types of programs to be implemented (household, yard waste, multi-family, etc.);
- c) Community groups and opinion leaders who can be used to reach these audiences;
- d) Department with primary responsibility for the program, and who will be helping them implement it;
- e) Techniques (see list below) to be utilized;
- f) Program costs and funding sources; and
- g) Program evaluation criteria and process.



2) Use the following list of education and information techniques as possible options (Programs need not be limited to these techniques.):

- a) TV and radio (network and local stations)--paid ads, public service announcements, live interviews, etc.;
- b) Direct mailings--bill inserts, letters from public officials, recycling calendars for biweekly or monthly curbside programs, sign-up cards for curbside programs, brochures, newsletters, etc.;
- c) Presentations--schools, community groups, etc.;

- d) Exhibits (booths/display boards/demonstration sites)--malls, fairs, public buildings, parks, etc.;
 - e) Door to door canvassers (volunteers, community group members or high school students)—sign-up for household collection or composting bins, general information brochures, etc.;
 - f) School program--curriculum, assembly, etc.;
 - g) Contests/awards/prizes--specific events, school programs, "no recyclables in one's garbage can" logo, "Best recycler of the year", etc.;
 - h) Signs/flyers--grocery stores for recyclable items to buy, solid waste facilities, public facilities and meeting places, etc.;
 - i) Newspaper--paid ads, personals, news stories, inserts, etc.;
 - j) Public involvement forums, including use of advisory committees, workshops, hearings and community projects such as Spring Cleanup, Chipping Days, etc.;
 - k) Tools such as household collection containers, compost bins, etc., which not only promote the program, but also increase the convenience of the activity that is being promoted; and
 - l) Public opinion surveys.
- 3) Discuss how this program will be evaluated and refined, including degree of penetration, clarity of information, and appropriateness of targeted audiences.

K) Other Source-separated Recycling or Composting Programs

In addition to the programs mentioned earlier, a jurisdiction may also want to target recycling or composting of special wastes which are a problem in its area, or any other desirable programs, such as in-house recycling programs, local market development efforts, or local government financial or technical assistance efforts to increase the effectiveness of recycling programs. Such assistance programs may be directed at businesses; institutions, such as schools, colleges, prisons, and hospitals; cities; military or Indian reservations; and state or federal parks and lands.

L) Processing of Mixed Waste for Recyclables

If a jurisdiction wants to evaluate the option of a "Dump and Pick" operation or mixed waste processing system, the system should be discussed in detail here. Waste processing options which might be considered are: processing of high grade commercial waste to recover specific materials, processing of construction/demolition or woody landclearing wastes, and processing of mixed residential waste. (Processing of source-separated recyclables or commingled recyclables should be discussed in the section of the plan, which deals with source-separation programs.) A critical component of this discussion is the available markets for recyclables or compostables removed from mixed solid waste. Discuss how a mixed waste processing system complements source separation strategies. Issues such as availability of labor, waste stream composition after implementation of source separation programs, facility siting, and financing, should be discussed.

3. Collection

The interrelationship between solid waste and recyclable collection should be discussed. As required by Chapter 70.95.090 RCW, this section must contain "a current inventory of solid waste collection needs and operations within each respective jurisdiction, which shall include:

- A. Any franchise for solid waste collection granted by the utilities and transportation commission in the respective jurisdictions including the name of the holder of the franchise and the address of his or her place of business and the area covered by the franchise;
- B. Any city solid waste operation within the county and the boundaries of such operation;
- C. The population density of each area serviced by a city operation or by a franchised operation within the respective jurisdictions;
- D. The projected solid waste collection needs for the respective jurisdictions for the next six years."



4. Energy Recovery and Incineration

Energy recovery and/or incineration of separated waste are a higher priority than energy recovery and/or incineration of mixed waste. Consequently, both should be evaluated in the plan. Also discuss ash disposal, including disposal location(s). Utilization of the ash or post-burn recovery of metals should also be considered.

5. Transfer

Discuss the adequacy of existing facilities. What are the environmental impacts of the existing facilities? Discuss the need for additional facilities. If recycling opportunities at urban transfer stations have not yet been considered, they should be evaluated in this section of the plan.

6. Import and/or Export

Describe any import/export of solid waste, which occurs in the planning area. Include amounts and types of waste being imported/exported.

For the purposes of these guidelines, import of waste means to bring waste from a location outside of a planning area into a planning area for processing and/or disposal. Export of waste means, to send waste from a planning area to a location outside of the planning area for processing and/or disposal.

7. Storage and Treatment (surface impoundments, landspreading piles, etc.)

Describe the existing conditions. What are the environmental impacts of existing facilities of these types? Discuss the need for additional facilities.

8. Landfill

Landfilling of separated waste is a higher priority than landfilling of mixed waste, consequently, both should be discussed. In addition, this section should include:



- A. The review of potential areas which meet the criteria for the siting of a solid waste disposal facility, as required by Chapter 70.95.090 RCW, and outlined in 70.95.165 RCW and 173-304-130 WAC;
- B. A description of any deficiencies in meeting the requirement for reserve accounts to cover the costs of landfill closure/post closure;
- C. A discussion of whether existing landfills meet the Minimum Functional Standards (Chapter 173-304 WAC) in the following areas: leachate collection and treatment systems; liners; flood prevention and control; gas control; scales; groundwater monitoring wells (and moisture detection for and regions); recycling facilities.
- D. A description of any abandoned or improperly closed sites. Maps showing the locations and sizes of these sites should be included if they are available.

9. Enforcement

Describe the current situation and the existing enforcement program. Describe how the following issues are handled: funding for the enforcement program, illegal dumping, improper storage of certain wastes, litter, and other problems. Is the local enforcement program effective?

10. Administration (Specify the various governmental roles and authorities. Discuss funding mechanisms.)

11. Other

Describe any other systems or specific waste streams such as sludge, problem waste, infectious waste, moderate risk waste, demolition waste, and inert waste.)

D. SUMMARY OF PROBLEMS, RECOMMENDATIONS, AND IMPLEMENTATION SCHEDULES FOR 6 AND 20 YEARS

1. Recommendations and overall implementation schedule for all waste reduction and recycling programs.
2. Recommendations and overall implementation schedule for bringing landfills and other facilities into compliance with the Minimum Functional Standards.
3. Recommendations and overall implementation schedule for all other solid waste handling programs and facilities.
4. A discussion of the solid waste advisory committee's ongoing involvement in implementation of the plan.
5. A summary of the development of the plan



E. STATE ENVIRONMENTAL POLICY ACT (SEPA)

Attach the completed SEPA checklist. If an EIS was done on the plan or any of the projects recommended in the plan, the EIS should be referenced in the plan.

F. APPENDIXES

Include interlocal agreements, resolutions of adoption, evidence of Solid Waste Advisory Committee participation in the planning process, documentation of compliance with SEPA, and any appropriate technical documents.



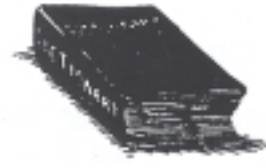
VII. ECOLOGY REVIEW PROCESS

The 1989 legislature adopted specific requirements, which the Department of Ecology must follow in its review of local solid waste management plans. Ecology and local governments "are encouraged to work cooperatively during plan development." This cooperative effort may include the exchange of information, advice on specific elements of the plan or on solid waste management in general, or other forms of technical assistance.

When a local government has completed a preliminary draft plan, it shall submit the draft plan to Ecology for preliminary review. A submittal for preliminary review will not be considered to be complete unless it includes seven complete copies of the draft plan, a letter formally requesting preliminary draft review, copies of interlocal agreements between all participating jurisdictions, evidence of SWAC participation in the planning process, and documentation of compliance with SEPA. All materials are to be sent to the solid waste planner in the appropriate regional office of the Department of Ecology. The Ecology regional solid waste planner will forward copies to the Office of Waste Reduction, Recycling, and Litter Control; to the Waste Management Grants Section; to the Utilities and Transportation Commission; and to other appropriate entities. Preliminary draft review will be completed within 120 days of the date that a complete submittal and formal request for preliminary review is received. If Ecology indicates that the draft plan is ready for local adoption and submittal for final review, the local adoption process may be begun. If Ecology indicates that revisions to the draft plan are needed, the local government must prepare a revised draft plan. (For a list of materials to be submitted with a revised draft plan, see Step 12 in Chapter V. Planning Process.) This step will be repeated until Ecology indicates that a draft plan is ready for local adoption and final review. A plan may go through multiple preliminary reviews. This may occur at the request of the local government, because Ecology comments were not adequately addressed, or because substantial changes to a draft plan have occurred since Ecology's review of a previous draft.

After Ecology has indicated that a draft plan is ready for local adoption and submittal for final approval, and after the local adoption process has been completed, local government shall submit a final draft plan for final review. A draft plan will not be accepted for final review unless Ecology has indicated that it is ready for this process. Ecology will limit its comments on final draft plans to those issues, which were identified during review of the preliminary draft(s) and to any other changes made between submittal of the previous draft and final draft plan. Final review will be completed within 45 days of the date that a complete submittal and formal request for final review is received. A submittal for final review will not be considered to be complete unless it includes seven complete copies of the draft plan, a letter formally requesting final review, a summary of any changes to the draft plan which occurred as part of the adoption process and any other changes to the draft plan, and resolutions of adoption from all participating jurisdictions.

If Ecology disapproves a plan, the disapproval shall be supported by specific findings. A final draft plan shall be deemed approved if Ecology does not disapprove it within 45 days of receipt. Disapproval of a plan or plan amendment may be appealed by the submitting entity under the procedures of Part IV of Chapter 34.05 RCW. The appeal shall be limited to the specific findings, which supported the disapproval.



VIII. DEFINITIONS

"AGRICULTURAL WASTES" means wastes on farms resulting from the production of agricultural products including, but not limited to manures, and carcasses of dead animals weighing each or collectively in excess of 15 pounds (WAC 173-304-100).

"CAPACITY SAVINGS" means the credit incurred due to the space saved in the current landfill, and the resulting savings from the postponement of the siting of a new more expensive landfill. $(\text{Present capital costs or debt repayment per ton of waste}) + (\text{projected future capital costs for new landfills per ton}) \times (\text{\# of tons diverted})$ capacity savings.

"CITIZEN" for the purposes of SWAC membership, means a resident of the planning area who does not have a vested interest in the waste management industry.

"CITY" means every incorporated city or town (RCW 70.95.030).

"COLLECTION SAVINGS" means the credit incurred if enough waste is diverted that the need for one collection truck, route, or worker is eliminated. $(\text{\# tons of waste diverted}) \times (\text{collection cost per ton of labor or equipment}) = \text{collection savings}$ if the savings is greater than or equal to the cost of one or more workers, trucks, or routes.

"COMPOSTING" means the controlled degradation of organic solid waste yielding a product for use as a soil conditioner (WAC 173-304-100).

"DANGEROUS WASTE" means any discarded, useless, unwanted, or abandoned nonradioactive substance, including, but not limited to, certain pesticides, or any residues or containers of such substances which are disposed of in such quantity or concentration as to pose a substantial present or potential hazard to human health, wildlife, or the environment because such wastes or constituents or combinations of such wastes: (a) Have short-lived, toxic properties that may cause death, injury, or illness, or have mutagenic, teratogenic, or carcinogenic properties; or (b) Are corrosive, explosive, flammable, or may generate pressure through decomposition or other means (RCW 70.105.010).

"DEMOLITION WASTE" means solid waste, largely inert waste, resulting from the demolition or razing of buildings, roads, and other man-made structures. Demolition waste consists of, but is not limited to, concrete, brick, bituminous concrete, wood and masonry, composition roofing and roofing paper, steel and minor amounts of other metals like cooper. Plaster (i.e., sheetrock or plaster board) or any other material, other than wood, that is likely to produce gases or a leachate during the decomposition process and asbestos wastes are not considered to be demolition waste for the purposes of WAC 173-304 (WAC 173-304-100). (Please note that this definition does not include treated wood or asbestos.)

"DEPARTMENT" means the Department of Ecology (RCW 70.95.030).

"DISPOSAL SAVINGS" (also known as "DIVERSION CREDIT") means the credit incurred for every ton of waste not landfilled. The tipping fee may be a good indication of disposal savings, especially if it is for a proposed facility. Otherwise it may be better to use this formula in computing disposal savings: (# tons of waste diverted) x (current and/or projected operating costs per ton) = disposal savings. If applicable, collection and capacity savings should be computed as part of disposal savings. (See definitions of "COLLECTION SAVINGS" and "CAPACITY SAVINGS.")

"DISPOSAL SITE" means the location where any final treatment, utilization, processing, or deposit of solid waste occurs (WAC 70.95.030).

"ENERGY RECOVERY" means a process operating under federal and state environmental laws and regulations for converting solid waste into useable energy and for reducing the volume of solid waste (RCW 70.95.030).

"ENVIRONMENTAL SAVINGS" means the credit incurred by a community that invests in environmental protection now instead of paying more for corrective action in the future. If there is no way to estimate environmental savings for a particular project, then the amount of money that a community is willing to invest in environmental protection may be considered to be the environmental savings for a project. The amount of money a community is willing to invest may be determined by a survey, an election, or simply estimated with input from the SWAC. If potential remedial action costs can be estimated (the Department may be able to help develop these estimates), then use the following formula to compute environmental savings: (# tons of waste diverted) x (remedial action costs per ton if project isn't done) - (cost of diversion) x (# tons diverted) environmental savings.

"EXTREMELY HAZARDOUS WASTE" means any dangerous waste which (a) will persist in a hazardous form for several years or more at a disposal site and which in its persistent form (i) presents a significant environmental hazard and may be concentrated by living organisms through a food chain or may affect the genetic makeup of man or wildlife, and (ii) is highly toxic to man or wildlife (b) if disposed of at a disposal site in such quantities as would present an extreme hazard to man or the environment (RCW 70.105.010).

"HAZARDOUS WASTE" means and includes all dangerous and extremely hazardous waste, including substances composed of both radioactive and hazardous components (RCW 70.105.010).

"HOUSEHOLD COLLECTION PROGRAMS" (also known as curbside programs) means the pick-up of recyclables from a household. This pick-up may be at a curb, end of driveway, or alleyway.

"INCINERATION" means a process of reducing the volume of solid waste. operating under federal and state environmental laws and regulations by use of an enclosed device using controlled flame combustion (RCW 70.95.030).

"INDUSTRIAL SOLID WASTES" means waste by-products from manufacturing operations such as scraps, trimmings, packing, and other discarded materials not otherwise designated as a dangerous waste under Chapter 173-303 WAC (WAC 173-304-100).

"INERT WASTES" means noncombustible, nondangerous solid wastes that are likely to retain their physical and chemical structure under expected conditions of disposal, including resistance to biological attack and chemical attack from acidic rainwater. (WAC 173-304-100).

"LANDFILL" means a disposal facility or part of a facility at which solid waste is permanently placed in or on land and which is not a land treatment facility (RCW 70.95.030).

"LEGISLATIVE AUTHORITY" means the applicable city or designated county commission\ council or special purpose government formed to carry out solid waste planning and management in the planning area.

"LOCAL GOVERNMENT" means a city, town, or county (RCW 70.95.030).

"MEDICAL WASTE" means all the infectious and injurious waste originating from a medical, veterinary, or intermediate care facility (WAC 173-304-100).

"MINIMUM FUNCTIONAL STANDARDS" refers to Chapter 173-304 WAC, the "Minimum Functional Standards for Solid Waste Handling."

"MODERATE-RISK WASTE" means (a) any waste that exhibits any of the properties of hazardous waste but is exempt from regulation under this chapter solely because the waste is generated in quantities below the threshold for regulation, and (b) any household wastes which are generated from the disposal of substances identified by the Department as hazardous household substances (RCW 70.105.010).

"PERMIT" means an authorization issued by the jurisdictional health department which allows a person to perform solid waste activities at a specific location and which includes specific conditions for such facility operations (WAC 173-304-100).

"PLANNING AREA OR JURISDICTION" means the geographical location designated by a local solid waste management plan as the plan's legal boundaries.

"PUBLIC INTEREST GROUP" means an organization, which reflects a civic, social, recreational, environmental, or public health perspective in the area and which does not directly reflect the economic interests of its membership. It is not a trade association or an organization whose purpose is to promote business interests, such as the Chamber of Commerce.

"PROCESSING" means an operation to convert a solid waste into a useful product or to prepare it for disposal (WAC 173-304-100).

"RECYCLABLE MATERIALS" means those solid wastes that are separated for recycling or reuse, such as papers, metals, and glass that are identified as recyclable material pursuant to a local comprehensive solid waste plan. Prior to the adoption of the local comprehensive solid waste plan, local governments may identify recyclable materials by ordinance.

"RECYCLING" means transforming or remanufacturing waste materials into usable or marketable materials for use other than landfill or incineration.

"SEPTAGE" means a semisolid consisting of settled sewage solids combined with varying amounts of water and dissolved materials generated from a septic tank system (WAC 173-304-100).

"SLUDGE" means a semisolid substance consisting of settled solids combined with varying amounts of water and dissolved materials generated from a wastewater treatment plant or other source (WAC 173-304-100).

"SOLID WASTE" or "WASTES" means all putrescible and nonputrescible solid and semisolid wastes, including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, demolition and construction wastes, abandoned vehicles or parts thereof and recyclable materials (RCW 70.95.030). This includes all liquid, solid, and semisolid materials, which are not the primary products of public, private, industrial, commercial, mining, and agricultural operations. Solid waste includes, but is not limited to, sludge from wastewater treatment plants and septage from septic tanks, woodwaste, dangerous waste, and problem wastes (WAC 173-304-100).

"SOLID WASTE HANDLING" means the management, storage, collection, transportation, treatment, utilization, processing, and final disposal of solid wastes, including the recovery and recycling of materials from solid wastes, the recovery of energy resources from solid wastes, or the conversion of the energy in solid wastes to more useful forms or combinations thereof (RCW 70.95.030).

"SOURCE SEPARATION" means the separation of different kinds of solid waste at the place where the waste originates (RCW 70.95.030).

"TIPPING FEE" means the price paid per cubic yard or other measurement to dispose of waste at a transfer station, incinerator, or landfill.

"USED OIL" means oil, which through use, storage, or handling has become unsuitable for its original purpose due to the presence of impurities or the loss of original properties.

"VOLUME REDUCTION" means reducing the amount or type of waste after the waste has been generated with such techniques as baling, shredding, compacting, and incinerating.

"WASTE REDUCTION" means reducing the amount or toxicity of waste generated or reusing materials (RCW 70.95.030).

"WHITE GOODS" means used major household appliances such as washers, dryers, and refrigerators.

"WOODWASTE" means solid waste consisting of wood pieces or particles generated as a by-product or waste from the manufacturing of wood products, handling and storage of raw materials and trees and stumps. This includes, but is not limited to, sawdust, chips, shavings, bark pulp, hog fuel, and log sort yard waste, but does not include wood pieces or particles containing chemical preservatives such as creosote, pentachlorophenol or copper-chrome arsenate (WAC 173-304-100).